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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/620,102	07/20/2000	Purushottam Yeluripati	BEL-003	2746

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EXAMINER
ANYA, CHARLES E

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/620,102	YELURIPATI ET AL.
	Examiner	Art Unit
	Charles E Anya	2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3/ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-19 are pending in this application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

3.   **Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over U.S. Pat. No. 6,6,29,128 B1 to Glass in view of U.S. Pat. No. 6,510,550

B1 to Hightower et al. and further in view of (On performance of Enterprise

JavaBeans pages 1-11) to Pospisil et al.

4.   As to claim 1, Glass teaches a computer system for supporting

communication between a plurality of users and at least one application server

comprising: an application service program for receiving a client request from a

client program executing on a computer associated with at least one of the users,

a client interface program for communicating messages between said client

program and said application service program, a service manager bean coupled

to said application service program for creating and returning to said client

program a handle to a functional bean appropriate to the client request, wherein

the functional bean is configured to model a business function (figures 9/10 Col. 15 Ln. 30 - 67, Col. 16 Ln. 1 - 15, Col. 18 Ln. 44 - Page 3 60).

5.   Glass is silent with respect to a data store interface for coupling said application service program to a data storage system and memory coupled to said application service program said memory for queuing customer requests and to service the queued customer requests in accordance with the code contained in the functional bean and for interfacing with the data storage system via the data store interface.

6.   Hightower teaches memory coupled to said application service program, said memory for queuing customer requests and to service the queued customer requests and for interfacing with the data storage system (Col. 8 Ln. 27 - 45).

7.   It would have been obvious to one of ordinary skill in the art at the invention was made to combine the teachings of Hightower and Glass because the teaching of Hightower would improve the system of Glass by allowing client continuous use of local application (Col. 8 Ln. 42 - 45).

8.   Pospisil teaches to a data store interface for coupling said application service program to a data storage system (JDBC API page 3 lines 36 - 45).

9.   It would have been obvious to one of ordinary skill in the art at the invention was made to combine the teachings of Pospisil and Glass because the teaching of Pospisil would improve the system of Glass by providing database updating (page 3 lines 36 - 45).

10.   As to claim 2, Glass teaches the computer system of claim 1 wherein the

functional bean is accessible by a program running on the client via an EJBobject

(figures 9/10 Col. 15 Ln. 30 - 67, Col. 16 Ln. 1 - 15, Col. 18 Ln. 44 - 60).

11.   As to claim 3, Glass teaches the computer system of claim 1 wherein the

functional bean is a modified entity bean (figures 9/10 Col. 15 Ln. 65 - 67, Col. 16

Ln. 1 - 15, Col. 18 Ln. 44 - 60).

12.   As to claim 4, Glass teaches the computer system of claim 1 wherein the

functional bean is configured to provide transactional persistence to a client

transaction (Col. 16 Ln. 1 - 15).

13.   As to claim 5, Glass teaches the computer system of claim 1 wherein the

client is web based (figure 5 Col. 12 Ln. 1 - 20).

14.   As to claim 6, Glass teaches the computer system of claim 1 wherein the

client is an application, an applet, a servlet or a JSP that can communicate with

an EIBobject's remote interface using RMI over TCP/IP or IIOP (Col. 16 Ln. 57 -

67).

15.   Claims 7-19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Pat. No. 6,6,29,128 B1 to Glass in vi w of (On

performanc of Ent rpris JavaBeans pages 1-11) to Pospisil t al.

16.   As to claim 7, Glass teaches a computer system comprising a plurality of

sets of functional beans each particular business method, the computer system

comprising: a microprocessor/a memory device coupled to the microprocessor

(inherent in figures 1/5), a service manager program coupled to the memory

device and configured to receive a number of requests from at least one of a

plurality of types of transactions from a plurality of clients (figure 9/10 Col. 15 Ln.

30 - 67, Col. 16 Ln. 1 - 15, Col. 18 Ln. 44 - 60), the service manager program

configured to obtain a handle to an instance of a functional bean based on a type

of transaction requested by a client and the service manager program configured

to return the handle to the client, wherein the client is configured to use the

handle to interact with the functional bean to execute a business method,

wherein the functional bean is configured to model a business function (figures

9/10 Col. 15 Ln. 30 - 67, Col. 16 Ln. 1 - 15, Col. 18 Ln. 44 - 60).

17.   Glass is silent with respect to at least one of a plurality of resources, a

load-sharing program coupled to the service manager program and configured to

create instances of functional beans based on a criterion.

18.   Pospisil teaches at least one of a plurality of resources, a load-sharing

program coupled to the service manager program and configured to create

instances of functional beans based on a criterion (scalability page 7 lines 20 -

30).

19.   It would have been obvious to one of ordinary skill in the art at the

invention was made to combine the teachings of Pospisil and Glass because the

teaching of Pospisil would improve the system of Glass by optimizing resource

usage (page 7 lines 20 - 30).

20.   As to claims 8-10, see the rejection of claim 7.

21.   As to claim 11,Glass teaches the code of claim 10, further comprising

instructions to receive the first request and the second request from the client via

a computer network (figures 1/5/7/8/9).

22.   As to claim 12, Pospisil teaches the code of claim 10, further comprising

instructions to create a number of instances of functional beans of the particular

type requested, said number being dependent on availability of resources

(scalability page 7 lines 20 - 30).

23.   As to claim 13, Glass teaches the code of claim 10, further comprising

instructions that allow a functional bean to instantiate a second functional bean of

a second type in order to execute the business logic contained in the second

functional bean instance (Col. 16 Ln. 1 - 15, Col. 18 Ln. 44 - 60).

24.   As to claim 14, Pospisil teaches the code of claim 10, further comprising:

instructions that allow a client to create a session with an instance of a session

Enterprise JavaBean and instructions that allow the session Enterprise JavaBean

to provide access to invoke the business methods contained in the functional

bean (page 2 lines 20 - 24, page 3 lines 1 - 2).

25. As to claim 15, Glass teaches the code of claim 10, further comprising:

instructions to instantiate an entity Enterprise JavaBean, said entity Enterprise

JavaBean containing logic that maps a padicular entity, and methods to

performing actions on the particular entity', and instructions to invoke the

methods contained in the entity Enterprise JavaBean from the business methods

contained in the functional bean (Col. 16 Ln. 1 - 15, Col. 18 Ln. 44 - 60).

26. As to claim 16, Pospisil teaches the code of claim 10, wherein the

instructions to create an instance of a functional bean of the particular type

requested further comprise: instructions to verify if required system resources are

available (scalability page 7 lines 20 - 30).

27. As to claim 17, Pospisil teaches the code of claim 16 further comprising: if

required system resources are not available, instructions to direct the computer

processor to an existing instance of a functional bean of the particular type

requested (scalability page 7 lines 20 - 30).

28. As to claim 18, Glass teaches a method comprising the steps of: creating

a functional bean from an object-oriented middleware component, wherein the

functional bean is configured to model a business function figures 9/10 Col. 15

Ln. 30 - 67, Col. 16 Ln. 1 - 15, Col. 18 Ln. 44 - 60), deriving a class with no data

elements from the object-oriented middleware component and adding a set of

computer-executable instructions to the derived class (Col. 18 Ln. 44 - 60).

29.   Glass is silent with respect to the set of computer-executable instructions

that is configured to provide transactional access to a pool of scarce system

resources allowing client requests to be queued on EJB instances taken from the

pool.

30.   Pospisil teaches the set of computer-executable instructions that is

configured to provide transactional access to a pool of scarce system resources

allowing client requests to be queued on EJB instances taken from the pool

(scalability page 7 lines 20 - 30).

31.   It would have been obvious to one of ordinary skill in the art at the

invention was made to combine the teachings of Pospisil and Glass because the

teaching of Pospisil would improve the system of Glass by optimizing resource

usage (page 7 lines 20 - 30).

32.   As to claim 19, Glass teaches the method of claim 18, wherein the object-

oriented middleware component is an entity Enterprise JavaBean figures 9/10

Col. 15 Ln. 30 - 67, Col. 16 Ln. 1 - 15, Col. 18 Ln. 44 - 60).

Response to Arguments

33.   Applicant's arguments filed 9/7/04 have been fully considered but they are

not persuasive.

In the remarks Applicant argued in substance that (1) the prior art reference of Glass does not teach or disclose a functional object or bean that contains business logic or function; (2) the prior art reference of Glass does teach a functional bean accessible from a client; (3) the prior art reference of Hightower does not teach using code in a functional bean to provide access to a data storage system (4) the prior art reference of Hightower does not teach a data store interface as residing on a machine other than the client (5) the prior art reference of Hightower lacks motivation for the combination with the Glass prior art reference because Applicant's application is directed to addressing the problem of the depletion of server resources caused by the proliferation of server objects as required by claim 1 (6) the prior art reference of Pospisil does not teach a functional bean that provides access to a data storage system and the creation of functional bean based on a criterion (7) the prior art reference of Glass does not teach transactional persistence and (8) the Glass prior art reference does not teach deriving a class with no data element as required by claim 18.

Examiner respectfully traverses these remarks:

A.   As to point (1), as the claimed language recites the functional bean is configured to model a business method and page 22 lines 1-2 of the specification discloses instances of functional beans that model a particular type of transaction like client requests-trouble ticket entry, account history, account status.

The Glass prior art reference also discloses that its functional bean (EJB function object 206) implements transaction management (Col. 16 Ln. 1 – 15) and therefore satisfies the requirement of invention as claimed.

As to point (2), client application 108 requests access to server object 110 are communicated via a remote proxy 154 (Col. 13 Ln. 16 – 25, Col. 13 Ln. 54 - 67). The remote proxy 154 subsequently invokes a function object via the type object 170, therefore making the function bean or object accessible from the client.

As to point (3), the rejection of claim 1 is an obviousness rejection (103 rejection) as such the prior art references used in this rejection should not be analyzed in isolation of each other. The Hightower prior art reference is used here to show that client's requests could be queued prior to the execution of the requests.

As to point (4), Pospisil prior art reference provides the data store interface to the data store because the Hightower does not explicitly teach data store interface that provide access to a data store. As to whether the data store resides on a machine other the client does make much of a different since it is well known that a data store could either be implemented locally or away from the client.

As to point (5) claim 1 as claimed does not include this limitation and as such is not considered.

As to point (6), again the prior art references used in this rejection should not be analyzed in isolation of each. The Pospisil prior art reference is not used

to show the teaching functional bean rather it is used to show a data store

interface that provides access to a data store.

As to point (7), persistence is provided within JavaBean framework to

facilitate application building and component use. Persistence also allows a bean

(including entity beans) to have its customized state saved and used or reloaded

later.

As to point (8), first the function object (EJBfunction object 206) of the

Glass prior art is a method object (Col. 14 Ln. 36 – 40) and as such does not

include data and it is derived from a "standard EJBfunction class" (Col. 18 Ln. 53

– 56).

Conclusion

34.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire

THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (571) 272-3757. The examiner can normally be reached on M-F (8:30-6:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-Ai can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles E Anya
Examiner
Art Unit 2126

cea.

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